

AMENDMENTS

IN THE CLAIMS

5 Claims 1-281 (canceled)

282. (currently amended) A method for fabricating a chip package, comprising:

joining a first side of a die and a substrate using an adhesive material;

after said joining said first side of said die and said substrate, forming a first

10 polymer layer over a second side of said die, over said substrate and across an edge of said die, wherein said first and second sides are opposite to each other;

after said forming said first polymer layer, forming a circuit layer on said first polymer layer, over said second side of said die, over said substrate and across said edge of said die, wherein said forming said circuit layer comprises a copper

15 electroplating process, and wherein said circuit layer comprises a portion ~~acting as a~~ part of an inductor;

after said forming said circuit layer, forming a second polymer layer on said circuit layer, on said first polymer layer, over said second side of said die, over said substrate and across said edge of said die;

20 after said forming said second polymer layer, forming a metal bump over said substrate, wherein said metal bump is connected to said die through said circuit layer; and

after said forming said metal bump, cutting said substrate.

25 283. (currently amended) A method for fabricating a chip package, comprising:

joining a first side of a die and a substrate using an adhesive material;

after said joining said first side of said die and said substrate, forming a first polymer layer over a second side of said die, over said substrate and across an edge of said die, wherein said first and second sides are opposite to each other;

30 after said forming said first polymer layer, forming a circuit layer on said first

polymer layer, over said second side of said die, over said substrate and across said edge of said die, wherein said forming said circuit layer comprises a copper electroplating process, and wherein said circuit layer comprises a portion ~~acting~~ as a part of a resistor;

5 after said forming said circuit layer, forming a second polymer layer on said circuit layer, on said first polymer layer, over said second side of said die, over said substrate and across said edge of said die;

 after said forming said second polymer layer, forming a metal bump over said substrate, wherein said metal bump is connected to said die through said circuit layer;

10 and

 after said forming said metal bump, cutting said substrate.

284. (currently amended) A method for fabricating a chip package, comprising:

 joining a first side of a die and a substrate using an adhesive material;

15 after said joining said first side of said die and said substrate, forming a first polymer layer over a second side of said die, over said substrate and across an edge of said die, wherein said first and second sides are opposite to each other;

 after said forming said first polymer layer, forming a circuit layer on said first polymer layer, over said second side of said die, over said substrate and across said

20 edge of said die, wherein said forming said circuit layer comprises a copper electroplating process, and wherein said circuit layer comprises a portion ~~acting~~ as a part of a waveguide;

 after said forming said circuit layer, forming a second polymer layer on said circuit layer, on said first polymer layer, over said second side of said die, over said

25 substrate and across said edge of said die;

 after said forming said second polymer layer, forming a metal bump over said substrate, wherein said metal bump is connected to said die through said circuit layer;

and

 after said forming said metal bump, cutting said substrate.

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285. (currently amended) A method for fabricating a chip package, comprising:
joining a first side of a die and a substrate using an adhesive material;
after said joining said first side of said die and said substrate, forming a first
polymer layer over a second side of said die, over said substrate and across an edge of
5 said die, wherein said first and second sides are opposite to each other;
after said forming said first polymer layer, forming a circuit layer on said first
polymer layer, over said second side of said die, over said substrate and across said
edge of said die, wherein said forming said circuit layer comprises a copper
electroplating process, and wherein said circuit layer comprises a portion ~~acting~~ as a
10 part of a capacitor;
after said forming said circuit layer, forming a second polymer layer on said
circuit layer, on said first polymer layer, over said second side of said die, over said
substrate and across said edge of said die;
after said forming said second polymer layer, forming a metal bump over said
15 substrate, wherein said metal bump is connected to said die through said circuit layer;
and
after said forming said metal bump, cutting said substrate.

286. (currently amended) A method for fabricating a chip package, comprising:
20 joining a first side of a die and a substrate using an adhesive material;
after said joining said first side of said die and said substrate, forming a first
polymer layer over a second side of said die, over said substrate and across an edge of
said die, wherein said first and second sides are opposite to each other;
after said forming said first polymer layer, forming a circuit layer on said first
25 polymer layer, over said second side of said die, over said substrate and across said
edge of said die, wherein said forming said circuit layer comprises a copper
electroplating process, and wherein said circuit layer comprises a portion ~~acting~~ as a
part of a filter;
after said forming said circuit layer, forming a second polymer layer on said
30 circuit layer, on said first polymer layer, over said second side of said die, over said

substrate and across said edge of said die;

after said forming said second polymer layer, forming a metal bump over said substrate, wherein said metal bump is connected to said die through said circuit layer; and

5 after said forming said metal bump, cutting said substrate.

Claims 287-300 (canceled)

301. (previously presented) The method of Claim 282, wherein said second polymer
10 layer comprises polyimide.

302. (previously presented) The method of Claim 282, wherein said second polymer layer comprises benzocyclobutene (BCB).

15 303. (previously presented) The method of Claim 282, wherein said substrate comprises a polymer.

304. (previously presented) The method of Claim 282, wherein said first polymer layer comprises polyimide.

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305. (previously presented) The method of Claim 282, wherein said first polymer layer comprises benzocyclobutene (BCB).

25 306. (previously presented) The method of Claim 282, wherein said forming said first polymer layer comprises a curing process.

307. (previously presented) The method of Claim 282, wherein said forming said first polymer layer comprises a grinding process.

308. (previously presented) The method of Claim 282, wherein said forming said first polymer layer comprises an etching process.

309. (previously presented) The method of Claim 282, after said joining said first side
5 of said die and said substrate, further comprising forming a third polymer layer over said substrate and surrounding said die, followed by said forming said first polymer layer further on said third polymer layer.

310. (previously presented) The method of Claim 309, wherein said forming said
10 third polymer layer comprises a curing process.

311. (previously presented) The method of Claim 309, wherein said forming said third polymer layer comprises a grinding process.

15 312. (previously presented) The method of Claim 309, wherein said forming said third polymer layer comprises an etching process.

313. (previously presented) The method of Claim 282, wherein said cutting said substrate comprises a mechanical cutting process.

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314. (previously presented) The method of Claim 282, wherein said forming said second polymer layer comprises a curing process.

315. (previously presented) The method of Claim 282, wherein said forming said
25 second polymer layer comprises a grinding process.

316. (previously presented) The method of Claim 282, wherein said forming said second polymer layer comprises an etching process.

317. (previously presented) The method of Claim 309, wherein said third polymer layer comprises epoxy.
- 5 318. (previously presented) The method of Claim 282, wherein said forming said metal bump comprises forming a solder bump over said substrate.
319. (previously presented) The method of Claim 282, wherein said forming said metal bump comprises forming a gold bump over said substrate.
- 10 320. (previously presented) The method of Claim 283, wherein said first polymer layer comprises polyimide.
321. (previously presented) The method of Claim 283, wherein said forming said first polymer layer comprises a curing process.
- 15 322. (previously presented) The method of Claim 283, wherein said forming said first polymer layer comprises a grinding process.
323. (previously presented) The method of Claim 283, wherein said forming said first polymer layer comprises an etching process.
- 20 324. (previously presented) The method of Claim 283, wherein said second polymer layer comprises polyimide.
- 25 325. (previously presented) The method of Claim 283, after said joining said first side of said die and said substrate, further comprising forming a third polymer layer over said substrate and surrounding said die, followed by said forming said first polymer layer further on said third polymer layer.

326. (previously presented) The method of Claim 325, wherein said forming said third polymer layer comprises a curing process.

327. (previously presented) The method of Claim 325, wherein said forming said
5 third polymer layer comprises a grinding process.

328. (previously presented) The method of Claim 325, wherein said forming said third polymer layer comprises an etching process.

10 329. (previously presented) The method of Claim 283, wherein said cutting said substrate comprises a mechanical cutting process.

330. (previously presented) The method of Claim 283, wherein said forming said metal bump comprises forming a solder bump over said substrate.

15 331. (previously presented) The method of Claim 283, wherein said forming said metal bump comprises forming a gold bump over said substrate.

332. (previously presented) The method of Claim 283, wherein said first polymer
20 layer comprises benzocyclobutene (BCB).

333. (previously presented) The method of Claim 325, wherein said third polymer layer comprises epoxy.

25 334. (previously presented) The method of Claim 283, wherein said substrate comprises a polymer.

335. (previously presented) The method of Claim 284, wherein said first polymer layer comprises polyimide.

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336. (previously presented) The method of Claim 284, wherein said forming said first polymer layer comprises a curing process.

5 337. (previously presented) The method of Claim 284, wherein said forming said first polymer layer comprises a grinding process.

338. (previously presented) The method of Claim 284, wherein said forming said first polymer layer comprises an etching process.

10 339. (previously presented) The method of Claim 284, wherein said second polymer layer comprises polyimide.

340. (previously presented) The method of Claim 284, after said joining said first side of said die and said substrate, further comprising forming a third polymer layer over
15 said substrate and surrounding said die, followed by said forming said first polymer layer further on said third polymer layer.

341. (previously presented) The method of Claim 340, wherein said forming said third polymer layer comprises a curing process.

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342. (previously presented) The method of Claim 340, wherein said forming said third polymer layer comprises a grinding process.

25 343. (previously presented) The method of Claim 340, wherein said forming said third polymer layer comprises an etching process.

344. (previously presented) The method of Claim 284, wherein said cutting said substrate comprises a mechanical cutting process.

345. (previously presented) The method of Claim 284, wherein said forming said metal bump comprises forming a solder bump over said substrate.

346. (previously presented) The method of Claim 284, wherein said forming said metal bump comprises forming a gold bump over said substrate.

347. (previously presented) The method of Claim 285, wherein said first polymer layer comprises polyimide.

348. (previously presented) The method of Claim 285, wherein said forming said first polymer layer comprises a curing process.

349. (previously presented) The method of Claim 285, wherein said forming said first polymer layer comprises a grinding process.

350. (previously presented) The method of Claim 285, wherein said forming said first polymer layer comprises an etching process.

351. (previously presented) The method of Claim 285, wherein said second polymer layer comprises polyimide.

352. (previously presented) The method of Claim 285, after said joining said first side of said die and said substrate, further comprising forming a third polymer layer over said substrate and surrounding said die, followed by said forming said first polymer layer further on said third polymer layer.

353. (previously presented) The method of Claim 352, wherein said forming said third polymer layer comprises a curing process.

354. (previously presented) The method of Claim 352, wherein said forming said third polymer layer comprises a grinding process.

355. (previously presented) The method of Claim 352, wherein said forming said
5 third polymer layer comprises an etching process.

356. (previously presented) The method of Claim 285, wherein said cutting said substrate comprises a mechanical cutting process.

10 357. (previously presented) The method of Claim 285, wherein said forming said metal bump comprises forming a solder bump over said substrate.

358. (previously presented) The method of Claim 285, wherein said forming said metal bump comprises forming a gold bump over said substrate.

15 359. (previously presented) The method of Claim 286, wherein said first polymer layer comprises polyimide.

360. (previously presented) The method of Claim 286, wherein said forming said first
20 polymer layer comprises a curing process.

361. (previously presented) The method of Claim 286, wherein said forming said first polymer layer comprises a grinding process.

25 362. (previously presented) The method of Claim 286, wherein said forming said first polymer layer comprises an etching process.

363. (previously presented) The method of Claim 286, wherein said second polymer layer comprises polyimide.

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364. (previously presented) The method of Claim 286, after said joining said first side of said die and said substrate, further comprising forming a third polymer layer over said substrate and surrounding said die, followed by said forming said first polymer layer further on said third polymer layer.

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365. (previously presented) The method of Claim 364, wherein said forming said third polymer layer comprises a curing process.

366. (previously presented) The method of Claim 364, wherein said forming said
10 third polymer layer comprises a grinding process.

367. (previously presented) The method of Claim 364, wherein said forming said third polymer layer comprises an etching process.

15 368. (previously presented) The method of Claim 286, wherein said cutting said substrate comprises a mechanical cutting process.

369. (previously presented) The method of Claim 286, wherein said forming said metal bump comprises forming a solder bump over said substrate.

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370. (previously presented) The method of Claim 286, wherein said forming said metal bump comprises forming a gold bump over said substrate.